

E-017/RP-92-484 ORDER APPROVING 1992 RESOURCE PLAN AND REQUIRING
ADDITIONS TO 1994 RESOURCE PLAN

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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Chair
Commissioner
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In the Matter of the Petition of
Otter Tail Power Company for
Approval of its 1992 Resource
Plan

ISSUE DATE: May 19, 1993

DOCKET NO. E-017/RP-92-484

ORDER APPROVING 1992 RESOURCE
PLAN AND REQUIRING ADDITIONS TO
1994 RESOURCE PLAN

PROCEDURAL HISTORY

I. PROCEEDINGS TO DATE

On July 6, 1992, Otter Tail Power Company (OTP) filed its 1992 Resource Plan.

On July 23, 1992, the Minnesota Department of Public Service (the Department) filed a petition as a matter of right to be a party in the case.

On July 28, 1992, the Residential and Small Business Utilities Division of the Office of the Attorney General (RUD-OAG) filed a petition as a matter of right to be a party in the case.

On July 30, 1992, the Department filed comments on the completeness of OTP's proposed resource plan.

On August 5, 1992, OTP filed a revision to its July 6 Resource Plan filing in accordance with Minn. Rules, part 7843.0300, subp. 6.

On August 12, 1992, Ag Processing, Inc. (API) filed a request that it be added to the service list. This was not a request for intervenor status. API was added to the service list.

On August 19, 1992, OTP filed the information identified as lacking by the Department in its July 30, 1992 comments: a non-technical summary of the Company's activity over the five years and the effect of its plan on rates and bills as required by Minn. Rules, part 7843.0300, subp. 6.

On October 2, 1992, the Izaak Walton League of America (IWLA) petitioned to intervene in the case.

On October 28, 1992, OTP filed a second revision to its July 6 Resource Plan filing in accordance with Minn. Rules, part 7843.0300, subp. 6.

On November 2, 1992, the Department, the RUD-OAG, and IWLA filed initial comments on the proposed plan.

On November 4, 1992, the Commission issued an Order granting IWLA's petition to intervene: ORDER GRANTING PETITION TO INTERVENE.

On December 28, 1992, OTP filed response comments.

On December 31, 1992, the Department, the RUD-OAG, and IWLA filed response comments.

On March 25, 1993, the Commission met to consider this matter.

On April 8, 1993, the Commission met on its own motion to reconsider this matter.

FINDINGS AND CONCLUSIONS

II. BACKGROUND

In August of 1990, the Commission adopted rules governing resource planning by Minnesota electric utilities. Minn. Rules, parts 7843.0100 through 7843.0600. Those rules require electric utilities to file proposed resource plans biennially, with the Commission determining by order which utilities shall file initial resource plans in 1991 and which in 1992. Minn. Rules, part 7843.0300, subp. 2.

On December 12, 1990, the Commission issued its ORDER ESTABLISHING FILING SCHEDULE FOR RESOURCE PLANS. In that Order, the Commission addressed the order in which the four Minnesota electric utilities would file their resource plans. The Commission found that it would be administratively efficient for one of the larger and one of the smaller utilities to file each year. The Commission directed Northern States Power (NSP) and Interstate Power Company (Interstate) to file in 1991 and Minnesota Power Company (MP) and OTP to file in 1992. ORDER at page 2.

The Commission's resource planning rules (Minn. Rules, parts 7843.0100 through 7843.0600) are detailed, but basically require electric utilities to file biennial reports on the projected energy needs of their service areas over the next 15 years, their plans for meeting projected need, the analytical process they used to develop their plans, and their reasons for adopting the specific resource mix proposed. The rules are designed to strengthen utilities' long term planning processes by providing input from the public, other regulatory agencies, and the

Commission. They are also intended to ensure that utilities making resource decisions give adequate consideration to factors whose public policy importance has grown in recent years, such as the environmental and socioeconomic impact of different resource mixes.

III. ANALYTICAL FRAMEWORK

In its review of proposed resource plans, the Commission considers the characteristics of the available resource options and the proposed plan as a whole. In addition, the Commission evaluates them on their ability to: 1) maintain or improve the adequacy and reliability of utility service, 2) keep the customers' bills and the utility's rates as low as practicable, given regulatory and other constraints, 3) minimize adverse socio-economic effects and adverse effects upon the environment, 4) enhance the utility's ability to respond to changes in the financial, social, and technological factors affecting its operations, and 5) limit the risk of adverse effects on the utility and its customers from financial, social, and technological factors that the utility cannot control. Minn. Rules, part 7843.0500, subp. 3.

IV. CONTESTED ASPECTS OF OTP'S PROPOSED RESOURCE PLAN

A. Forecasting

In its plan, OTP forecasted a fairly steady rate of growth but asserted that any load growth may be offset by several factors: new appliance efficiency standards, demand-side investments, loss of customers, and increased competition from natural gas.

The Department proposed an alternative forecast which projected slightly higher peak demand and energy requirements over the planning period.

The difference between the two forecasts is small. Based on OTP's forecast, the Company has relatively few capacity decisions to make over the planning period and is not currently planning to add any baseload capacity. Although the Department's forecast projects a summer deficit one year earlier than the Company's forecast, this difference should not be great enough to cause the Company to significantly alter its plans. In these circumstances, the Commission will not choose between the two forecasts but will direct OTP and the Department to discuss and attempt to resolve their differences in forecasting before the Company files its 1994 Resource Plan.

B. Demand-Side Management

OTP did not perform an analysis of the technical or achievable demand-side management (DSM) potential within its service territory. Lacking load data information necessary to identify

achievable conservation potential for each of its customer classes, OTP did not set a specific efficiency goal in its plan. Instead, the Company limited its commitment to DSM to the level legislatively mandated for conservation spending.

The Department recommended that OTP be required to revise its current plan to increase its targeted levels of DSM energy and capacity savings to the levels that the Department recommended. The Department recommended a 72 percent increase in energy saving goals and a 28 and a 33 percent increase in winter and summer peak demand savings goals, respectively. Both the IWLA and the RUD-OAG supported the higher DSM goals recommended by the Department.

The Commission finds the Department's demand-side goals more in line with its longstanding commitment to conservation and energy efficiency than Otter Tail's goals. The Commission will not require Otter Tail to adopt the Department's goals wholesale, however. The Department calculated its goals for OTP using industry-wide rather than company-specific data. OTP has agreed to improve the DSM portion of its next plan by performing the studies necessary to effectively quantify the achievable DSM potential in its service territory. This approach will provide company-specific data which the Department acknowledged is a better basis for DSM goals. The Commission expects the Company's next resource plan to reflect the Department's ambitious approach to demand-side management and the Company's knowledge of demand-side potential in its own service area.

To assure that progress is made in this area, the Commission will order the Company to adopt a rigorous analysis of achievable cost-effective DSM in its next plan. The Company's DSM plan should 1) be based on additional company-specific end-use load research and analysis for each of its customer classes recommended by the Department, 2) consider seriously the DSM goals recommended by the Department and 3) reflect careful consideration of the comments of the parties in the dialogue required under this Order.

C. Renewables as Resource Options

1. Generally

A resource plan must show the resource options the utility believes it might use to meet the service needs of its customers over the 15 year forecast period. Minn. Rules, part 7843.0400, subp. 2. OTP's plan indicated the likelihood that it will need additional resources after the year 2000. Therefore, OTP's plan was required to list resource options considered for addition to the existing resources. For resource options that could meet a significant part of the need identified in the forecast, the Company was required to include a general evaluation of the option, including its availability, reliability, cost, socioeconomic effects, and environmental effects. Minn. Rules, part 7843.0400, subp. 3, A.

IWLA argued that OTP's plan was flawed in that it failed to adequately consider the social benefits of biomass (whole tree burning) and wind energy systems in reaching its conclusions on the value of renewable energy options. Specifically, IWLA cited a lack of commitment from OTP to study the potential for wind power resources, the failure to provide cost study data for wind resources, and inaccuracies in the Company's analysis of whole tree burning technology.

The RUD-OAG did not single out renewable energy options for greater attention in the plan. Instead, the RUD-OAG expressed greater concern for the inclusion of environmental externalities and implementation of a social cost approach in the resource planning process.

The Department agreed with the IWLA that the Company had inadequately addressed the potential of renewables but disagreed with the OAG that the Company should reflect environmental costs in rates or switch to an inclining block rate design at this time.

OTP claimed that it has not ignored renewable resources and is making extensive use of renewable, biomass, and waste fueled resources. According to the Company, these resources contributed the equivalent of almost 17 percent of retail sales in 1991 and almost 22 percent through October 1992, with the percentages expected to increase in 1993. Addressing the commenters' concerns, the Company stated that its planning process over the next two years will carefully and objectively reexamine the assumptions and conclusions of all parties to this process and reevaluate the prospects for wind development in the context of changing circumstances.

The Commission will assure progress along the lines expressed by the Company. The Commission will order the Company to undertake a comprehensive study of the social benefits of biomass, wind energy, and other renewable resources and include that study as part of its next resource plan filing.

2. Department's Wind Generator Pilot Project Proposal

The Department urged the Commission to direct OTP, as part of its resource planning process, to develop a pilot wind project of at least 30 MW by 1995. Commenting on the Department's proposal, the RUD-OAG stated that a cost study evaluating overall system cost and operational characteristics from various resources should precede development of the proposed 30 MW wind generator.

OTP objected to the Department's proposal. The Company argued that it will not need additional supply side resources in the next decade and that a 30 MW pilot project would require an investment equal to almost 20 percent of the Company's existing rate base in Minnesota. OTP asserted that it has access to other forms of renewable energy at less cost than is anticipated from wind energy in the near future.

The Commission is concerned about the lack of cost studies or rate impact analysis supporting the Department's 30 MW wind proposal. One of the factors on which the Commission is required to evaluate resource plan proposals is their ability to keep the customers' bills and the utility's rates as low as practicable, given regulatory and other constraints. Minn. Rules, part 7843.0500, subp. 3, B. Before considering the Department's proposal further, the Commission will request the Department to work with the Company to prepare a preliminary cost study and rate impact analysis of the wind project and submit it to the Commission for review.

D. Approach to Social Costs

Minn. Rules, part 7843.0500, subp. 3, A states that a resource plan should contain a general evaluation of any resource option that could meet a significant part of the need identified in the forecast. The evaluation should address the option's availability, reliability, cost, socioeconomic effects, and environmental effects.

The RUD-OAG asserted that OTP's valuation methodology did not take into account the environmental cost of energy production. The RUD-OAG recommended that the Company either monetize environmental costs or develop specific environmental goals. The Department noted that the Company did not include a discussion of external costs in its consideration of demand and supply-side resources. The Department recommended that the Company begin including at least the major external costs imposed by the generation of electricity and quantify the major environmental advantages and disadvantages for all resource options.

OTP objected that environmental costs cannot be accurately quantified at this time. However, the Company did propose to change future resource plan filings by using environmental externalities as a sensitivity input to its decision-making process.

The Commission will not require OTP to quantify environmental costs in its next resource plan. The Commission agrees with the Department and the RUD-OAG that resource plans should consider the social costs of its resource options. However, while establishing dollar values for environmental costs may be the best approach for cost comparison purposes, environmental cost quantification is not explicitly required by the rule. Nor, on the basis of the record to date, have such costs been quantified to the Commission's satisfaction. Moreover, encouraging the Company to develop dollar figures for its environmental costs in its resource plan would be premature and contrary to the Commission's view that adoption of dollar values for environmental costs in Minnesota should be consistent between proceedings and between utilities. Accordingly, until there is greater clarification in this area from the legislature or the scientific community, the Commission will simply require OTP to

include more explicit consideration of social costs of the various resource options in its next resource plan.

E. Contingency Plans

One element on which a resource plan is evaluated is whether it enhances the utility's ability to respond to changes in the financial, social, and technological factors affecting its operation during the 15 year planning period. Minn. Rules, part 7843.0500, subp. 3, D. OTP did not give much emphasis to either short- or long-term contingency planning in its resource plan. The Company explained that it has relatively few capacity decisions to make over the planning period. The Company identified DSM and seasonal capacity purchases from the Mid-America Power Pool (MAPP) to address what it expects to be relatively small summer capacity deficits. As a last resort, OTP stated that it would install a combustion turbine to meet its short-term summer deficit.

The Commission finds that OTP's contingency planning does not reflect an adequate appreciation of the financial, social, and technological factors that may have substantial impacts upon its operation during the 15 year planning period. The plan did not include an analysis of resource needs in any circumstance other than the Company's load forecast scenario. For example, the plan failed to consider 1) the impact of higher than expected resource needs from industry expansions or forced retirement of existing capacity, 2) the development of a large wind farm by a qualified facility (QF) with PURPA rights to sell electricity to the Company at or below the Company's avoided cost, 3) the impact of possible new legislation such as a carbon tax or legislation requiring the Company to pay a fixed dollar adder or percent adder for renewable QF payments at or above its avoided cost, and 4) the fact that, depending on load growth in the MAPP region, power pool purchases may be restricted or prohibitively expensive in the future.

Given the size of the summer deficits projected in the near term and the fact that these initial deficits may not occur if higher levels of DSM are achieved, the Commission will not require the Company to refile a contingency plan prior to filing its next resource plan as IWLA recommends. However, the Commission will require a substantially augmented contingency plan as part of that plan. The Company's next plan should contain a more detailed short-term contingency plan describing the resource options it would use to meet any summer capacity deficit that may occur and the risks associated with each option. The plan should also address other financial, social, and technological factors that may affect its operations during the 15 year planning period as required by the rule, including the four contingencies previously listed.

F. Rate Design

The appropriate place to *adopt* changes in a utility's rate design, of course, is in a rate proceeding, not the resource planning docket. However, rate design is one of the DSM mechanisms for promoting conservation and, as such, is one of the resource options to be included in a resource plan. Accordingly, a utility should include in its resource plan (for consideration in the resource plan docket) various rate design changes that it believes would foster conservation, changes that merit consideration for adoption in its next rate case.

The Department and the RUD-OAG indicated that OTP's resource plan could have provided more and better developed rate design resource options. The Department stated that the Company should have 1) considered the potential of interruptible rates to clip peak load as opposed to shifting consumption to other periods, 2) evaluated the benefits of cycling interruptible load to enhance its current radio control load-management potential, and 3) eliminated declining block rates. The RUD-OAG discussed the following rate design change options: the elimination of declining block rates, the establishment of seasonal rates, and the reduction or elimination of customer charges.

OTP defended its plan, noting its efforts to promote DSM through rates were tempered by its pricing philosophy that non-rate objectives such as conservation should be considered only as long as they would not cause undue variance from cost of service.

The Commission will not determine specific rate design changes in the context of a resource planning proceeding. However, since rates can significantly impact the demand for electricity, the Commission will encourage the Company to explore additional ways to use rate design to further its resource planning goals. In its 1994 plan, the Company should address how and to what extent rate design can be used to achieve DSM goals. At a minimum, the Company's 1994 rate plan should address the rate design options discussed by the intervenors in this case.

V. COMMISSION ACTION

Upon review of the record established in this matter, the Commission makes the following findings of fact and conclusions: First, OTP's proposed resource plan, as augmented by the Company's supplemental filings on August 5 and October 28, 1992, contains all the elements of a resource plan as required by Minn. Rules, part 7843.0400.

Second, the Company has provided enough information upon which to base the findings and conclusions it is required to make by Minn. Rules, part 7843.0500, subp. 1.

Third, regarding the substance of the plan, the Commission finds that the Company's plan is consistent with the expectations of the Resource Planning Rules for an initial resource plan. The Commission has considered the Company's plan as a whole, as required by Minn. Rules, part 7843.0500, subp. 3, and finds that it reflects a good faith effort by the Company. The plan provides a basis for continuing work on the goals of the resource planning rules: a) to strengthen the Company's long term planning processes by providing input from the public, other regulatory agencies, and the Commission and b) to ensure that in making its resource decisions the Company will give adequate consideration to factors whose public policy importance has grown in recent years, such as the environmental and socioeconomic impact of different resource mixes.

Fourth, the Company's plan, as an initial effort, is acceptable in light of the five concerns specifically enumerated in Minn. Rules, part 7843.0500, subp. 3.

Finally, the Company has expressed willingness to work with the Department, the RUD-OAG, and other stakeholders to build on this year's experience in developing its next plan. This is an important factor in reaching the determination that the Company's initial plan is acceptable.¹

In short, it appears to the Commission that a cumulative, cooperative process is satisfactorily under way, precisely what the rules envision.²

Accordingly, the Commission will accept the OTP's 1992 Resource Plan and direct the Company to implement several changes in its 1994 Resource Plan.

¹ To assure that such beneficial discussion occurs, this Order will direct the Company to meet with the interested parties to discuss its 1994 resource plan and the issues raised regarding that plan by the parties. As an expression of the Commission's priorities and on-going attention to these matters, the Company will be required to report in its next plan (and twice during the course of its preparation of its 1994 Plan) regarding its meetings with the stakeholders.

² In lieu of rejecting a plan as inadequate, the rules allow the Commission to direct a utility to address specified issues in its next filing, especially issues not yet totally resolved and issues on which the facts are still emerging or evolving. In light of the Company's good faith effort and willingness to work with other parties to improve its next plan, the Commission is exercising that option in this case. Minn. Rules, part 7843.0500, subp. 4.

ORDER

1. Otter Tail Power Company's (OTP's) 1992 Resource Plan is accepted.
2. Within 120 days of this Order, the Department shall work with OTP to prepare a preliminary cost study and rate impact analysis of a 30 MW wind project and file it with the Commission.
3. Between now and the filing of its 1994 Resource Plan, OTP shall meet with interested parties to discuss
 - 1) the possibilities for redesigning DSM program marketing themes;
 - 2) the social costs of the relevant resource options and the social benefits of biomass, wind energy, and other renewable resources;
 - 3) differences in forecasting methods; and
 - 4) appropriate demand-side management goals as discussed in section IV, B of this Order.
4. On October 15, 1993 and February 15, 1994, OTP shall file informal reports with the Commission regarding the meetings and discussions required by Ordering Paragraph 3. On those same dates (October 15, 1993 and February 15, 1994) interested parties may file similar informal reports regarding those meetings and discussions.
5. In its 1994 Resource Plan, OTP shall include
 - a. a report on the meetings and discussions required by Ordering Paragraph 3;
 - b. a rigorous DSM analysis that 1) is based on additional company-specific end-use load research and analysis for each of its customer classes recommended by the Department, 2) addresses the DSM goals recommended by the Department and 3) is prepared after dialogue with the parties.
 - c. a comprehensive study of the social benefits of biomass, wind energy, and other renewable resources;
 - d. more specific consideration of the social costs associated with the relevant resource options;
 - e. a short-term contingency plan that provides more detail on which resource options the Company will use to meet any near-term summer capacity deficit and the risks associated with each option;

- f. an improved long-term contingency plan addressing the financial, social and technological factors that may affect its operations during the 15 year period as required by the rule and specifically including improvements based on the recommendations of the Department, the Izaak Walton League of America (IWLA), the RUD-OAG and Commission Staff;
 - g. discussion of how and to what extent rate design can be used to achieve DSM goals, including, at a minimum, discussion of the rate design options proposed by the intervenors in this case;
 - h. alternative forecasts and capacity situations that incorporate reasonable scenarios of resource options and Company resource activities, particularly for estimates of DSM activities, together with a list of the resource assumptions that are incorporated into each of those forecasts.
- 6. Any other party filing a forecast in OTP's 1994 Resource Plan proceeding shall provide a list of the resource assumptions that are incorporated into that forecast.
 - 7. If, as part of OTP's 1994 Resource Plan proceeding, any party files an adjustment to a forecast previously filed, the party shall clearly identify the corresponding forecast in the previous filing, explain why the adjusted forecast is preferable, and reconcile it with the forecast previously filed.
 - 8. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Richard R. Lancaster
Executive Secretary

(S E A L)